

The background of the slide features a low-angle shot of a modern building with a glass and concrete facade, set against a clear blue sky. The building is on the left side, and the sky occupies the rest of the frame. A semi-transparent blue horizontal band is overlaid across the middle of the image, serving as a background for the text.

MAP-21 Workshop

Bridge Asset Management Breakout

Bridge Asset Management - Agenda

- Federal Goals & Asset Management
 - Christopher Long P.E.
- Caltrans Asset Management
 - Steve Guenther P.E.
- Caltrans Bridge Asset Management Plan
 - Michael B. Johnson P.E.
 - Nancy Bruton P.E.

Bridge Asset Management - Goals

Similar Strategic Goals

■ MAP-21 Section 1203 National Goals

- Safety
- Infrastructure Condition
- Congestion Reduction
- System Reliability
- Freight Movement and Economic Vitality
- Environmental Sustainability
- Reduced Project Delivery Delays

■ Caltrans Strategic Goals

- Safety
- Mobility
- Delivery
- Stewardship
- Service



Bridge Asset Management - Goals

Goals

- Identify Bridge Asset Management Stakeholders
- Develop a Communication Plan
- Discuss Plan Options and Get Feedback

- No Discussion of Funding Allocations

Bridge Asset Management – MAP 21 Requirements

- Inventory and Condition
- Asset Management Objectives and Measures
- Risk and Life Cycle Cost Analysis
- Performance Gap Identification
- Financial Plan
- Investment Strategies

Caltrans Asset Management

- Office of Strategic Management
 - Lead for Caltrans Asset Management Plan coordination
 - Financial, Organizational Change, Data Management and Integration, etc.
- Executive Board Committee on Asset Management (February 2013)
- Caltrans Asset Management Plan
 - Pavements, bridges, culverts, ITS elements
- Draft Caltrans Asset Management Plan – April 2015

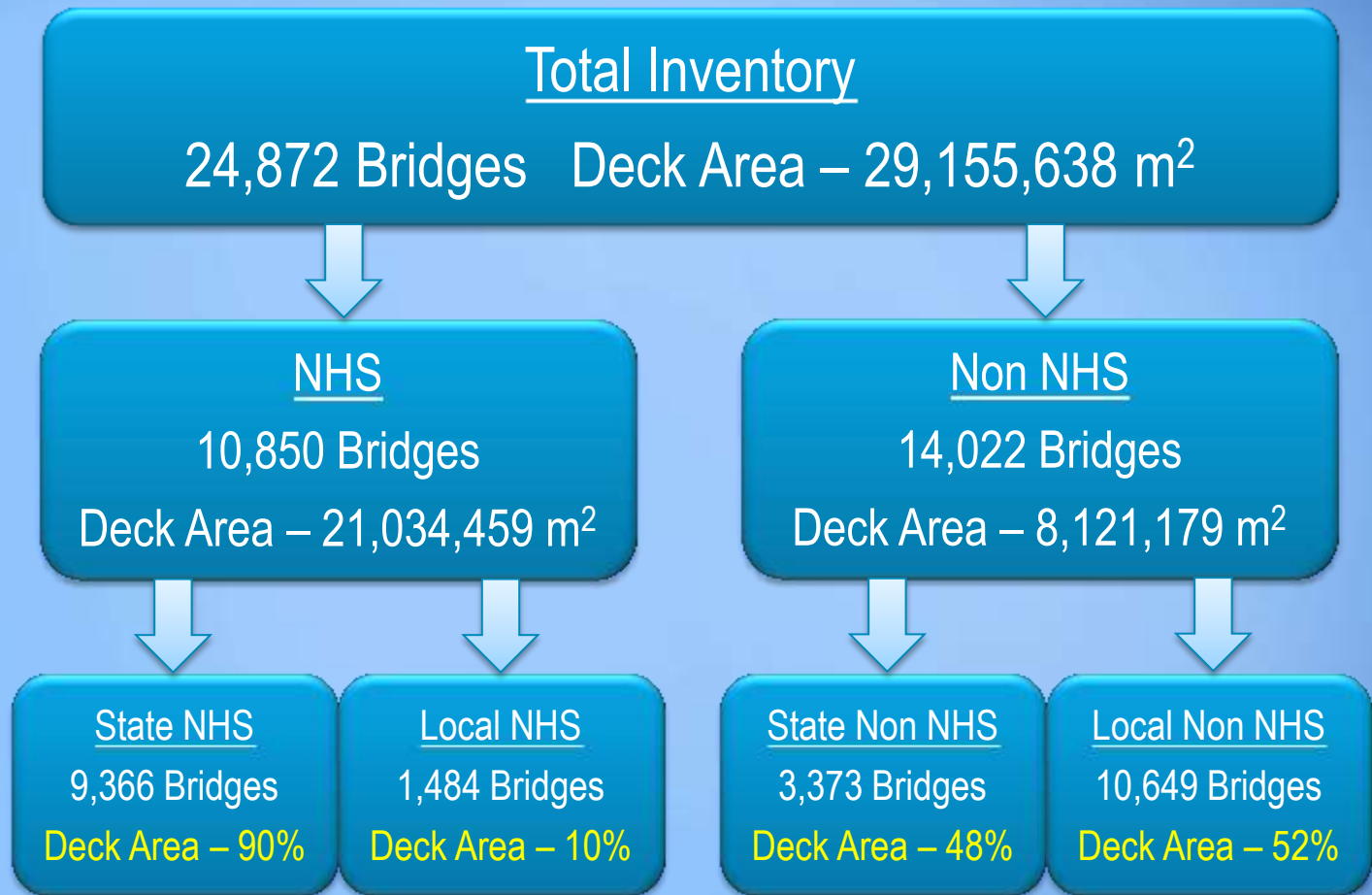


Bridge Management Plan

National Bridge Inventory

- Federal regulations require all public bridges (>20 feet) that carry vehicular traffic to be inventoried and inspected.
- Caltrans performs the majority of all bridge inspections in California.
- The information collected is largely mandated by national specifications.
- Caltrans has a complete inventory of all bridges in California.

National Bridge Inventory



There are over 250 Local Agency owners of NHS bridges
87% of local bridge owners own less than 10 NHS bridges.

Bridge Condition

- The condition of all bridges is required to be evaluated during routine bridge inspections (typically every 2 years).
- Condition is evaluated using both FHWA and AASHTO element level inspection criteria.
- Condition can be measured in a number of ways using the information collected during inspections.
- Caltrans has complete condition assessment information for all bridges in California.

Bridge Risks

- Bridges have inherent risks from a variety of sources.
- Bridges risks typically include the following:
 - Bridge scour, seismic risk, vehicle or vessel impact, steel fatigue, homeland security, fire
- Caltrans currently has defined vulnerabilities for scour and seismic for all bridges.
- Other risks lack a consistent defined evaluation criteria.

Bridge Performance Measures

Safety

- Scour and Seismic Risk
- Bridge Rail Safety
- Critical Finding Efficiency

Preservation

- Bridge Preservation Index
- Bridge Health Index
- Distressed Bridges

Service

- Load Capacity Rating
- Vertical Clearances
- Service Level Rating

Bridge Management Plan Challenges

Effective Communication

- What is the role of the MPO's, RTPA's, Cities in the development of the NHS Bridge Asset Management Plan?

Bridge Management Plan Challenges

Bridge Preservation – We want to encourage bridge preservation to maximize life and minimize long term costs.

- What is the best way to incorporate a preservation component in the NHS Bridge Asset Management Plan?

Bridge Management Plan Challenges

Project Programming - Existing state and local programs have different NHS bridge eligibility requirements and objectives.

- What are the available options for managing project selection on NHS bridges? – graphic on next slide.

NHS Bridge Management Approaches

One Approval Body



Two Approval Body



Bridge Management Plan Challenges

Gaps and Obstacles

- What are the gaps and obstacles that need to be addressed in implementing an effective NHS Bridge Asset Management Plan?

Questions?

Presenters

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